

Revision of Unit - 1

DSE Core 2:

MVC Design Pattern in PHP

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Unit – 1 (Revision)

- Object, classes
- Creating classes and Instantiation
- Setting Properties and methods
- Understanding public, private, protected properties and methods
- Magic Methods and Inheritance
- Introduction of MVC
- CodeIgniter specific files and structure

Object and Classes

- Objects are basic building blocks of a PHP OOP program
- An object is a combination of data and methods
- These objects communicate together through methods

Creating classes and Instantiation

```
1  <?php
{ 2  class Simple {
3
} 4  }
5  $object = new Simple();
6
7  print_r($object);
8  echo gettype($object), "\n";
9  ?>
```

simple Object () object

PHP access modifiers

- *Access modifiers* set the visibility of methods and member fields
- PHP has three access modifiers: *public*, *protected*, and *private*
- The *public* members can be accessed from anywhere
- The *protected* member can be accessed only within the class itself and by inherited and parent classes.
- The *private* members are only be accessed by the class that defines the member

Setting Properties and methods

- Object attributes is the **data bundled** in an instance of a class
- The object attributes are called *instance variables* or *member fields*
- An instance variable is a variable defined in a class.
- each object in the class has a **separate copy**

Setting Properties

```
<?php
    class Person {
        public $name = "";
    }
    $p1 = new Person();
    $p1->name = "Chirag";

    $p2 = new Person();
    $p2->name = "Jagani";

    echo $p1->name . "\n";
    echo $p2->name . "\n";
?>
```

Chirag Jagani

Setting Methods

- Methods are functions defined **inside the body of a class**
- Methods are used to perform operations with the **attributes of our objects**
- Methods are **essential in *encapsulation*** concept of the OOP pattern

Setting Methods

```
1  <?php
2  class Circle {
3      public $radius;
4      function setRadius($radius) {
5          $this->radius = $radius;
6      }
7      function area() {
8          return $this->radius * $this->radius * M_PI;
9      }
10 }
11 $c = new Circle();
12 $c->setRadius(5);
13 echo $c->area();
```

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Magic Methods

- The "magic" methods are special names, starting with two underscores, which will be triggered in response to particular PHP events
- PHP magic methods should be started with `__` symbol
- All magic methods *MUST* be declared as *public*
- PHP reserves all function names starting with `__` as magical

Magic Methods

- `__construct()`
- `__destruct()`
- `__get()`
- `__set()`
- `__isset()`
- `__unset()`
- `__toString()`
- `__clone()`

**Now Let's Start
Practical work**